



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,722	02/27/2004	Yvette S. Atkinson	SAN-04	6798
32509	7590	12/19/2005	EXAMINER	
CARRIE A. BOONE, P.C. 2450 LOUISIANA SUITE 400-310 HOUSTON, TX 77006			POLLICOFF, STEVEN B	
			ART UNIT	PAPER NUMBER
			3728	

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/788,722	Applicant(s) ATKINSON ET AL.	
	Examiner Steven B. Pollicoff	Art Unit 3728	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/27/04.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/27/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: See Specification Page 1, Lines 29-30. The phrase "...\$125,000 was spent on the aviation and labor costs while \$225,000 was spent on the pesticide chemicals," is duplicated at Page 2, Lines 1-2. Please delete the duplication error. Appropriate correction is required.

Claim Objections

2. Claim 18 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 18 does not positively claim or recite any structure that would further limit the tire storage system.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

Art Unit: 3728

2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. Claims 1-5,8-14,17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (U.S. Pat. No. 4,893,713) in view of Hulet (U.S. Pat. No. 5,033,621).

As to Claim 1, Thomas discloses a tire storage system comprising a spacer (See Thomas Fig. 2, reference number 18) placed in the opening of a tire. The spacer (18) comprises a top portion (see Fig. 2 generally) having a circumference greater than the predetermined circumference of the bead of the tire, a cylindrical body (see Fig. 2, reference number 24; see also Column 4, Lines 36-39) having a center, and a connecting rod (see Fig. 2 generally and Fig. 3, reference number 72) disposed through the center of the body.

Thomas discloses a first and second tire cap (see Thomas Fig. 2, reference numbers 50 and 32) each comprising a head portion (Fig. 2, reference numbers 56 and 36) and a base portion (Fig. 3, reference numbers 54 and 35), but does not disclose two identical tire caps, each comprising a head portion and a base portion where the head portion of the first tire cap fits through the opening and the base portion of the second tire cap is disposed atop the tire; wherein access to the inside of the tire is prevented when the tire storage system is fully engaged. However, Hulet discloses a stacking device for automotive parts comprising two identical first and second caps (see Hulet Fig. 6, reference number 30) each comprising a head portion (Fig. 6, reference number 32) and a base portion (Fig. 6, reference number 33) where the head portion of the first

Art Unit: 3728

cap fits through the opening of a brake rotor and the base portion of the second cap is disposed atop the brake rotor; wherein access to the inside of the brake rotor is prevented when the storage system is fully engaged (see Hulet Column 2, Lines 28-34; see also Column 5, Lines 49-55). The caps are identical for the purpose of better stackability and component engagement, more efficient manufacture and assembly. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Thomas tire storage system to include two identical caps, as taught by Hulet, for the purpose of protecting used automotive items from the elements outdoors (should the items be stored outside) (see Hulet Column 2, Lines 28-34).

As to Claim 2, Thomas discloses that the connecting rod (see Thomas Fig. 2 and 3 generally) further comprises a first tip (see Thomas Fig. 3, reference number 88) and a second tip (Fig. 3, reference number 78), wherein the first tip engages securely with the head portion of the first tire cap (see Fig. 2 and 3 generally) and the second tip engages securely with the head portion of the second tire cap (see Fig. 2 and 3 generally) when the first tire cap and second tire cap are affixed to the spacer (see Fig. 2 generally).

As to Claim 3, Thomas discloses that the head portion of each tire cap further comprises a chamber (see Thomas Fig. 3, reference numbers 46 and 66) having a first opening and a second opening (see Fig. 3 generally near reference numbers 80 and 90), wherein the first tip threads through the second opening of the chamber of the first tire cap and the second tip threads through the first opening of the chamber of the

second tire cap when the first tire cap and the second tire cap are affixed to the spacer (see Fig. 2 generally).

As to Claim 4, Thomas discloses that the first opening further comprises shafts (see Thomas Fig. 2, reference number 84) for preventing the tips from being disengaged from the chamber. Thomas does not disclose a second opening, further comprising shafts. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have duplicated the shafts of the first opening and included them (the shafts) on the second opening, since it has been held that mere duplication of the essential working parts of a device involve only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

As to Claim 5, Thomas discloses that the tire caps are formed of a molded plastic (see Thomas Column 4, Lines 57-59; Column 5, Lines 30-34). Thomas does not disclose that the spacer is formed of a molded plastic or that the caps and the spacer are formed of a elastomeric compound. However, inasmuch as Applicant discloses that the tire storage system can be composed of a rigid plastic material, such as a thermoplastic or elastomeric compound produced by injection molding or other polymer fabrication process (see Specification of Record Page 4, Lines 8-13), one can reasonably conclude that an elastomeric compound can be a form of a molded plastic. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a molded plastic for the spacer since Thomas already disclosed that the tire caps were made of a molded plastic for the purpose of protecting the inside of the tire. It has also been held to be within the general skill of a worker in

Art Unit: 3728

the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice (*In re Leshin*, 125 USPQ 416) and since elastomeric compound can be a form of molded plastic, elastomeric compound may be substituted for the molded plastic, as taught by Thomas, to be the choice material for forming the caps and spacer to protect the tire.

As to Claims 8-10, Thomas discloses that the first tire cap is stackable atop a second tire storage system, that a second tire storage system is capable of being stacked atop the second tire cap, that the first tire cap is stackable atop the second tire cap prior to being engaged with the spacer, and the second tire cap is stackable atop the first tire cap prior to being engaged with the spacer. (see Thomas, Fig. 1 and 4 generally).

As to Claim 11, Thomas discloses that the base portion of each tire cap has gentle sloping, flexible sides (see Thomas Fig. 3 generally), wherein the sides are capable of slightly flattening when the tire is disposed atop the tire cap. Because the caps can be made of moldable plastic, the sides of the base portion are capable of slightly flattening when weight is applied (see Thomas Column 4, Lines 56-67).

As to Claim 12, Thomas discloses that the top portion of the spacer is disposed over the bead of the tire when the tire storage system is fully engaged (see Thomas, Fig. 2, reference numbers 18, 26, and 30, particularly where 18 contacts 30 at 26).

As to Claim 13, Thomas discloses that the size of the spacer is tailored to the size of the opening of the tire (see Thomas Fig. 2, reference number 18).

As to Claim 14, Thomas discloses that the tire storage system comprises a second spacer, wherein the second spacer is larger than the first spacer. Looking at Fig. 2 of Thomas, the Examiner considers the first spacer to be the portion of the spacer (18) that extends through the tire wall openings (i.e. the diameter of the tire bead). The Examiner considers the horizontal component of the spacer (18) that extends over the tire bead (30) to be the second spacer. As defined, the second spacer has a larger diameter than the first spacer. Therefore, the second spacer is larger than the first spacer.

As to Claims 17 and 18, inasmuch as Applicant's storage system prevents mosquitoes from breeding inside or atop the tire, the tire storage system of Thomas' storage system will inherently prevent mosquitoes from breeding inside or atop the tire as well. Alternatively, even though Thomas does not disclose that the storage system prevents mosquitoes from breeding inside or atop the tire, Hulet discloses that its storage system, when properly assembled, protects its contents from the outdoor elements including water and moisture for the purpose of preventing damage to the item being stored (see Hulet Column 5, Lines 10-13). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Thomas storage system to prevent water and moisture from collecting inside or atop the tire. In preventing the introduction of water and moisture inside or atop the stored tire, mosquitoes would have nowhere to breed.

Art Unit: 3728

5. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (U.S. Pat. No. 4,893,713) in view of Hulet (U.S. Pat. No. 5,033,621) as applied to Claims 1 and 5 above and further in view of Abu-Isa, (U.S. Pat. No. 6,809,129).

Thomas, as modified above, does not disclose that the elastomeric compound includes a fire-retardant material. However, Abu-Isa discloses a useful fire-retardant elastomeric compound for industrial applications (see Abu-Isa Column 5, Lines 25-50). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the material of the Thomas tire caps and spacer to include a fire-retardant material for the purpose of preventing tire fires that can occur when, as Applicant discloses, tires spontaneously combust or at least for the purpose of delaying the spread of a fire to other tires or items stored in close proximity to one another until fire fighting remedies are available and employed.

6. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (U.S. Pat. No. 4,893,713) in view of Hulet (U.S. Pat. No. 5,033,621) as applied to Claims 1 and 5 above and further in view of Bethe et al., (U.S. Pat. No. 3,033,804).

Thomas as modified above discloses all the limitations of the claim except for it does not disclose that the caps and spacer are treated with a fire-retardant material after formation. However, Bethe discloses that synthetic rubber-like polymers (an elastomeric compound) can be treated in a fire-retardant aqueous bath. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Thomas caps and spacer to be treated with a fire retardant after their formation, as taught by Bethe, since treating the caps and spacer with the fire retardant

Art Unit: 3728

after formation may be more economical and efficient or more effective than producing the tire storage elements with the fire retardant already impregnated in the choice material.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (U.S. Pat. No. 4,893,713) in view of Hulet (U.S. Pat. No. 5,033,621) as applied to Claims 1,13, and 14 above and further in view of Ehr Gott (U.S. Pat. No. 6,729,485).

Thomas as modified above discloses all the limitations of the claim except for it does not disclose that the second spacer is a different color from the first spacer. However, Ehr Gott discloses a storage device that is color coded for facilitating rapid assembly (see Ehr Gott Column 8, Lines 4-15). Therefore, it would be obvious to one of ordinary skill in the art at the time of the invention to modify the Thomas spacers to be different colors, as taught by Ehr Gott, for the purpose of ease of assembly, indicating compatibility between parts, and identification of individual parts (see Ehr Gott Column 8, Lines 4-15).

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (U.S. Pat. No. 4,893,713) in view of Hulet (U.S. Pat. No. 5,033,621) as applied to Claims 1 and 3 above and further in view of Young et al., (U.S. Pat. No. 5,054,617).

Thomas, as modified above, discloses all the limitations of the claim except for it does not disclose that the head portion of the cap is cross-shaped, when viewed from overhead. However, Young discloses a container wherein the head portion is cross-shaped when viewed from over head (see Young Fig. 2, reference number 6) for the purpose of alignment when multiple containers are stacked. Therefore, it would have

been obvious to one of ordinary skill in the art at the time of the invention to modify the Thomas caps to have a head portion that is cross-shaped, as taught by Young, for the purposes of alignment when stacking (see Young Fig. 3 generally).

9. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas (U.S. Pat. No. 4,893,713) in view of Hulet (U.S. Pat. No. 5,033,621) as applied to Claims 1 and 3 above and further in view of Eichner (U.S. Pat. No. 4,658,955).

As to Claim 19, Thomas, as modified above, discloses all the limitations of the claim except for it does not disclose that the tips may be severed for emergency disengagement of the tire storage system. However, Eichner discloses a storage system comprising a closure element (similar to the one disclosed in the present invention) with locking fingers (shafts) and an insertable tip (see Eichner Fig. 2, reference numbers 40 and 34, respectively). When engaged, the tip is capable of being severed for emergency disengagement of the storage system because the plastic connecting rod of the tip was designed to break when a sufficient force acts upon it. (see Eichner Column 1, Lines 56-58; see also Column 3, Lines 37-44). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Thomas tips to be designed and attached to a plastic connecting rod, as taught by Eichner, such that they can be severed for emergency disengagement with only minimal force (see Eichner Column 3, Lines 37-44).

As to Claim 20, Thomas does not disclose that the tips are conical in shape. However, Eichner discloses that the tips are conical (see Eichner Fig. 2, reference

Art Unit: 3728

number 34; see also Column 3, Lines 38-40) for the purpose of easy insertion into a cylindrical bore (see Eichner Column 3, Lines 58-68). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the Thomas tips to have a conical shape, as taught by Eichner, for the purpose of easy insertion and lockability of the closure element of the storage system (see Eichner Column 3, Lines 58-68).

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Thomas (U.S. Pat. No. 4,304,279) discloses a tire storage system with a nut and bolt arrangement. Bluteau (U.S. Pat. No. 5,321,931) discloses a used tire storage system.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven B. Pollicoff whose telephone number is (571)272-7818. The examiner can normally be reached on M-F: 7:30A.M.-4:00P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mickey Yu can be reached on (571)272-4562. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

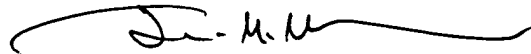
Art Unit: 3728

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ABP

SBP

12/13/05



JILA M. MOHANDESI
PRIMARY EXAMINER

12/13/05